



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,390	09/02/2004	Andrew Philip Parker	C4203(C)	1673
201 7590 08/08/2007 UNILEVER INTELLECTUAL PROPERTY GROUP 700 SYLVAN AVENUE, BLDG C2 SOUTH ENGLEWOOD CLIFFS, NJ 07632-3100			EXAMINER LISTVOYB, GREGORY	
			ART UNIT 1711	PAPER NUMBER
			MAIL DATE 08/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,390

Applicant(s)

PARKER, ANDREW PHILIP

Examiner

Gregory Listvoyb

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1, 3 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 4, 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

Claims 2, 4, 6-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Boeckh (US 5488095) herein Boeskh in combination with Nigam (US 6291023) herein Nigam.

Boeskh discloses a cleaning composition for fabric treatment (see Column 13, line 10) comprising an functionalised polyester wherein the polyester is esterification product of iminodiacetic acid and polyethylene glycol (see Column 3, line 25), which comprises the same constituents as one of the Application examined (see Example 1 and Claims 2, 6, 8-10 of the Application) and surfactants (see Column 9, line 25) at the presence of esterification catalyst, such as benzene sulfonic acid or sulfuric acid.

Boeskh teaches that the cleaning system may contain surfactants (Column 9, line 25).

Boeskh does not teach a step of treating his polyester with epichlorohydrine, which results in an azedinium-functionalized polyester.

Nigam teaches commercially available azetidinium-containing polyamides for textile treatment are the product of condensation of polyamino-amine with

Art Unit: 1711

epichlorohydrine (see Column 8, line 20). Nigam discloses that the azetidinium-containing compounds are pH insensitive, which significantly increase their number of applications and robustness of the cleaning system.

Therefore, It would have been obvious to a person of ordinary skills in the art at the time the invention was made to treat Boeskh polyester with epichlorohydrine, which results in azetidinium-functionalized polyester in order to obtain are pH insensitive and robust cleaning system.

Claims 2, 4, 6, 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Rippon (GB 1547958) herein Rippon in combination with Makhlouf et al (US Patent 3686111, cited in the previous Office Action) herein Makhlouf and Nigam.

Rippon discloses a method of treating a substrate which comprises the step of contacting a keratinaceous textile material (see page 1, line 5) with a composition comprising an azetidinium-containing polyamide (see line 30) or functionalized polyester (see column 2, line 20) wherein the polyester is synthesized by reacting an amine-containing diacid with polyether diols (meeting the limitations of Claim 10) (see page 7, line 5).

Rippon does not disclose azetidinium-containing polyester.

Nigam teaches commercially available azetidinium-containing polyamides (which used by Rippon) for textile treatment are the product of condensation of polyamino-amine with epichlorohydrine (see Column 8, line 20).

Since Rippon's polyester contains amino groups, it would be feasible to treat it with epichlorohydrin in order to obtain azetidinium structure. A polyester has a clear advantage over polyamide in all cleaning applications due to its biodegradability.

It would have been obvious to a person of ordinary skills in the art at the time the invention was made to treat Rippon's polyester with epichlorohydrine in order to obtain biodegradable cleaning compound.

Rippon does not disclose cellulosic textile material and substrate-compatible carrier including one or more surfactants.

Nigam or Makhoulf teach compositions azetidinium-containing polymers for cleaning purposes containing surfactants.

Makhoulf teaches an azetidinium-functional polyester. (Column 4, line 15, Column 5, line 40) at the presence of a surfactant (reaction product of polyhydroxystearic acid and glycidyl methacrylate and methacrylic acid (see Example 1). Note that Makhoulf calls it

Art Unit: 1711

a dispersion stabilizer. However, the function of this dispersant is equal to a function of a surfactant.

Makhlouf discloses a method of coating a substrate, such as cellulosic textile fabric in composition with a pigment (Column 7, line 30).

It would have been obvious to a person of ordinary skills in the art at the time the invention was made that Rippon's polyester can be use for treating cellulosic textile material, since Rippon's polyester is similar to Makhlouf's one. It would increase number of applications for Rippon's polyester raising its commercial value.

Surfactants (or dispersants) decrease a surface energy of the substrate and coating, improving contact with them. In addition, surfactant allows decreasing a concentration of the polymer due to its better spreadability, which leads to lower consumption of the coating polymer.

Therefore, It would have been obvious to a person of ordinary skills in the art at the time the invention was made to use surfactants in the method of treating a substrate with Rippon's polyester in order to achieve better compatibility with the substrate, which increases a quality of the coating and makes more economically sound process.

Response to Arguments

Applicant's arguments filed 5/23/07 have been fully considered but they are not persuasive.

Regarding Makrouf, Applicant argues that Examiner has combined a feature of one component (the imine-modified polymerized ethylenically unsaturated carboxylic acid) with another distinct component (the dispersion stabilizer).

In opposite, Makrouf teaches a reactive dispersant, capable to react with imine-modified polymer (see Examples).

Examiner agrees with Applicant's arguments regarding Pereira, Carswell, Maran and Letton references. The above references are withdrawn.

Since Claim 5 is cancelled and Claims 6 and 8 are amended, rejection based on 35U.S.C. 11, second paragraph is withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 9am-6pm.

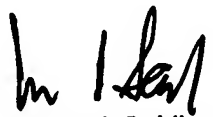
Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Listvoyb
Examiner
Art Unit 1711

GL


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700